IntelliKnight® Model 5820XL Addressable Fire Alarm Control System

The IntelliKnight System is the easy way to make the most of fire alarm technology.

IntelliKnight is the first fire alarm system to provide you with the revolutionary value and performance of addressable sensing technology combined with exclusive, built-in digital communication, distributed intelligent power, a modular design and an expanded, easy to use interface. Powerful features such as drift compensation and maintenance alert are delivered in this powerful FACP from Silent Knight. For more information about the IntelliKnight system, or to locate your nearest source, please call 1-800-446-6444, or in Minnesota, call 763-493-6435.

Description

The IntelliKnight 5820XL performs drift compensation and calibration checks on each of the sensors in the system.

The basic IntelliKnight 5820XL system can be expanded by adding modules such as the Model 5860 Remote Annunciator, Model 5815XL Signalling Line Circuit Expander, the Model 5824 Serial/Parallel Interface (for printing system reports), and the 5895XL Intelligent Power Module. The Model 5820XL also features a powerful built-in dual line fire communicator that allows for reporting of all system activity to a remote monitoring location.

Features

- Up to 508 addressable points.
- Uses standard wire—no shielded or twisted pair required.
- Built-in digital communicator.
- Central station reporting by Point or by Zone.
- Built-in synchronization for appliances from AMSECO,Gentex®, Faraday, and Wheelock®
- Supports Class B (Style 4) and Class A (Style 6) configuration for SLC, SBUS, and Flexput circuits.
- Distributed, intelligent power.
- Drift compensation.
- Flexput™ I/O circuits.
- Eight pre-programmed output cadences, (including ANSI-3.41), and 4 programmable outputs.
- Built-in annunciator with 80-character LCD display.
- RS-485 bus provides communication to system accessories.
- Built-in RS-232 interface for programming via PC.
- Built-in Form C trouble relay rated at 2.5 amps at 24 VDC.
- Two built-in Form C programmable relays rated at 2.5 amps at 24 VDC.
- Supports Sounder Bases.

Specifications

Primary AC: 120 VRMS at 50 / 60 hz, 2.5A

Total Accessory Load: 5A at 24 VDC

5 amps at 24 VDC of power-limited notification power

Standby Current: 140 mA

Alarm Current: 260 mA

Flexput™ Circuits

Six programmable circuits which can be programmed individually as:

Notification circuits: 3 amps of power-limited power per circuit at 24 VDC.

Auxiliary power circuits: 3 amps of power-limited power per circuit at 24 VDC.

Initiation Circuits: 100 mA of power limited power per circuits at 24 VDC.

Mechanical Specifications:

Flush Mount

Dimensions:

14-1/2”W x 24-3/4”H x 3-7/8”D
(36.8 W x 62.9 H x 9.8 D cm)

Overall Dimensions:

16-1/8”W x 26-3/8”H x 4-1/8”D
(40.6 W x 67 H x 11.8 D cm)

Weight: 28 lbs. (12.8 kg)

Color: Red

Telephone Requirements:

FCC Part 15 and Part 68 approved

Type of Jack: RJ31X (two required)

Approvals:

UL Listing

NFPA 72	-Central Station -Remote Signalling -Local Protective Signalling System -Auxiliary Protected Premises Unit -Water Deluge Releasing Service
CFSM:	7165-0559: 135
MEA	429-92-E Vol. 9
FM	approved

SILENT KNIGHT®

IntelliKnight Model 5820XL Addressable Fire Alarm Control Panel

Indicator Lights:

GENERAL ALARM (Red) - On for alarm

SUPERVISORY (Yellow) - On when a supervisory condition exists.

SYSTEM TROUBLE (Yellow) - On when a trouble condition exists.

SYSTEM SILENCED (Yellow) - On when an alarm, trouble or supervisory condition has been silenced but not yet cleared.

SYSTEM POWER (Green) - On when power systems are normal;flashes for AC or DC failure.

System Application

The IntelliKnight Model 5820XL control panel has one built-in Signalling Line Circuit (SLC) which supports 127 devices. Three additional loops can be added using the 5815XL SLC expanders to increase overall capacity to 508 devices.

The Model 5820XL's SLC loops support multiple device types:

- Addressable photoelectric smoke detector
- Addressable ionization smoke detector
- Addressable heat sensor
- Addressable duct smoke detector
- Contact module
- Relay output module
- Addressable notification module

The following advanced sensor capabilities are available using the IntelliKnight Model 5820XL:

- Automatic drift compensation
- Maintenance alert
- Built-in sensor test to comply with NFPA 72 calibration testing requirements

The IntelliKnight 5820XL features a 5 amp power supply and maximum battery charging capacity of 33 amp hours. An additional cabinet enclosure is required for batteries in excess of 17 amp hours.

Flexput™ circuits on the Model 5820XL control can be individually programmed to function as notification circuits, auxiliary power outputs, or initiation circuits that support both 2- and 4-wire smoke detectors.

The IntelliKnight system operates on non-twisted, unshielded cable when wired in compliance with standard wiring practices as called out in the National Electric Code 760 specifications for power-limited fire protective signalling cables. No special wiring is required.

The Model 5820XL provides seven preset notification cadence patterns including ANSI 3.41 and four user programmable selections for fire alarm notification.

Two programmable general purpose Form C relay outputs are provided on the Model 5820XL FACP.

Additionally, the IntelliKnight system features a built-in walk test and auto-programming. Its innovative, dead-front cabinet design allows for flush or surface mounting. System maintenance is easy to perform.

Built-In Digital Communicator

The IntelliKnight Model 5820XL features a built-in UL listed digital communicator for remote reporting of system activity and system programming. The communicator has the ability to seize two telephone lines to report alarms and troubles to a monitoring facility. The communicator supervises two phone lines and will activate a trouble signal if a line failure is sustained for more than 45 seconds. Other communication features include: retry if communication fails, two phone number capability, download phone number capability and touchtone or rotary dialing. The communicator is compatible with SIA and Ademco Contact ID. The format is selectable by account number.

User Interface

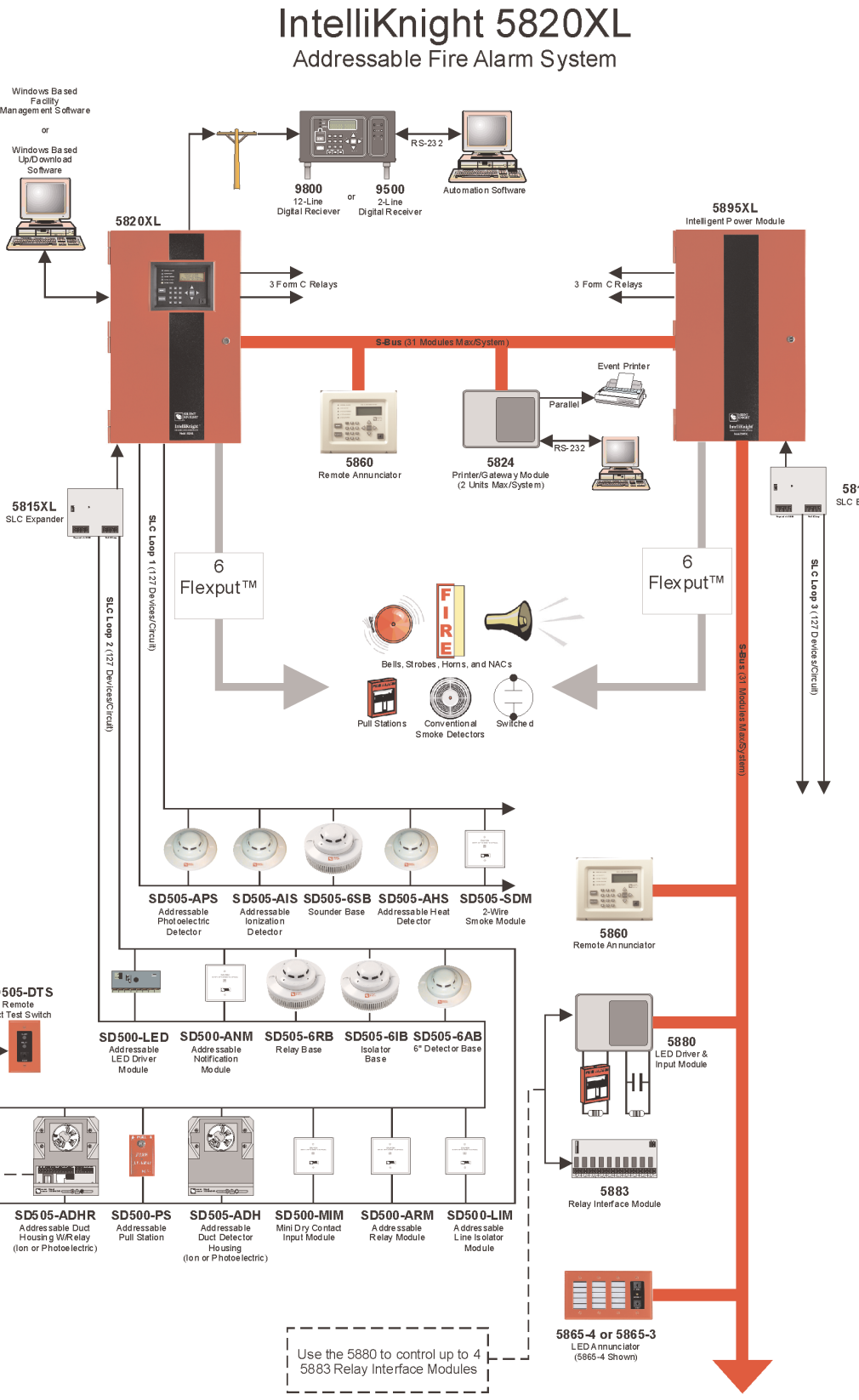
The IntelliKnight's built-in annunciator with 80 character LCD display and large easy-to-use tactile touchpad can be used for system operation, programming and maintenance. It has five LEDs for alarm, supervisory, system trouble, system silenced and system power. System operations include silencing alarms and troubles, resetting alarms and the display of alarm troubles and memory. The system's non-volatile event history buffer stores 1000 events for viewing from the built-in or remote annunciator. System

operation can be initiated with a mechanical firefighter's key or a valid 4- to 7-digit operator's code.

Programming

The IntelliKnight system offers several options to simplify and speed up programming. The JumpStart™ feature minimizes programming required to start a new system. The built-in keypad and the 5860 Remote Annunciator give on-site access to all programming. You can also program remotely using the Windows™ Download Software.

IntelliKnight Model 5820XL Addressable Fire Alarm Control Panel



IntelliKnight System Accessories

Compatible Devices

IntelliKnight's devices feature a low profile design and EEprom addressing. EEprom addressing prevents water intrusion problems via the back of the sensor and eliminates mechanical failures related to decade switches.

Model SD505-APS

Addressable photoelectric smoke detector.

Model SD505-AIS

Addressable ionization smoke detector.

Model SD505-AHS

Addressable heat sensor.

Model SD505-6AB

Six inch base designed for use with detector head models SD505-APS, SD505-AIS and SD505-AHS.

Model SD505-4AB

Four inch base designed for use with detector head models SD505-APS, SD505-AIS and SD505-AHS.

Model SD500-AIM

Dry Contact Input Module. Designed to used with normally open dry contacts. Mounts in a 4 inch square electrical box. It features an indicator LED to show alarm status and a coverplate.

Model SD500-MIM

Mini Dry Contact Input Module. A miniature version of the addressable input module which is designed to be used with pull stations and other normally open dry contact inputs where a smaller size is desired.

Model SD500-ANM

Addressable Notification Module providing a single Class A or Class B notification circuit on the SLC.

Model SD500-ARM

Addressable Relay Module. Features 2 Form C output relays, designed to mount on a 4 inch square electrical box. Provides indicator LED to show output status and comes with a coverplate.

Model SD505-ADH

Duct Housing. Detects smoke in HVAC ducts.

Model SD505-ADHR

Duct detector base with relay. Provides form C alarm contact. For use with SD505-APS and AIS sensors. Compatible with SD505-DTS remote test switch.

Model SD505-DTS

Remote test switch. Used with SD505-ADHR. Provides remote key operated test function and annunciation of detector alarm.

Model SD505-6SB

Six-inch sounder base. Operates in single and multi-station modes and/or as a system sounder. Used with existing sensor and base. Requires 2 additional wires for power.

Model SD505-6IB

Six-inch isolator base. Used with existing base and the SD505-APS, AIS, and AHS sensors. Provides isolation for style 7 circuits.

Model SD505-6RB

Six-inch relay base. Used with existing sensor and base. Provides one Form C contact.

Model SD500-SDM

Two-wire detector input module. Allows for the connection of conventional 2-wire detectors on the SLC loop. Requires two additional wires for power.

Model SD500-LIM

Loop Isolator Module. Provides isolation for style 7 circuits.

Model SD500-LED

An Addressable LED driver module that connects to the SLC loop and is capable of driving 80 LEDs. Up to 40 SD500-LED modules can be used SLC loop with a maximum or 100 SD500-LED modules per system.

Model SD500-PS

Addressable Pull Station

S-BUS Accessories

The following items listed are devices that connected to the IntelliKnight's RS-485 Bus

5860 Remote Fire Annunciator

The 5860 features the same 80 character backlit LCD display keypad and firefighter's keyswitch as the 5820. The system can be fully programmed and operated from any remote annunciator.

5815XL Signal Line Circuit Expander

The SLC expander is used to add more addressable devices to the IntelliKnight system. The 5820XL can support three 5815XLs. Each 5815XL can support 127 devices.

5895XL Intelligent Power Module

Adds 5 amps of power, 6 Flexput™ I/O circuits and 2 Form C relay circuits to an IntelliKnight system.

5880 LED/IO Module

Features 40 LED outputs, 8 normally open dry contact inputs and one piezo output.

5865-3 and 5865-4 Remote LED Annunciator

Features 30 Programmable LEDs (15 red and 15 yellow) outputs and piezo sounder. The 5865-4 adds a silence and reset switch to the package.

5883 Relay Board

Features 10 General purpose Form C relays. Used with 5880 module.

5824 Serial/Parallel Gateway Module

Has one parallel and one RS-232 serial port for connecting any standard IBM-compatible printer to the IntelliKnight system. Interfaces with building control system.

5496 Intelligent Power Module

The Model 5496 is a 6 amp.notification power expander that provides four additional power-limited notification appliance circuit outputs.

SKSS Silent Knight Software Suite

5660 Up Down Load Software

User-friendly, Windows™ software for remote programming of the IntelliKnight panel using a PC.

5670 Facility Management Software

Powerful end-user software allows viewing of detector status and event history via modem or direct connection.

SILENT KNIGHT

7550 Meridian Circle, Maple Grove, MN 55369-4927
800-446-6444 or in Minnesota 763-493-6435
FAX: 763-493-6475
World Wide Web: http://www.silentknight.com

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